

January 13, 2005

Mr. D. E. Grissette
Vice President
Southern Nuclear Operating
Company, Inc.
P.O. Box 1295
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 - RESPONSE TO NUCLEAR REGULATORY COMMISSION BULLETIN 2003-02, "LEAKAGE FROM REACTOR PRESSURE VESSEL LOWER HEAD PENETRATIONS AND REACTOR COOLANT PRESSURE BOUNDARY INTEGRITY" (TAC NOS. MC0574 AND MC0575)

Dear Mr. Grissette:

On August 21, 2003, the Nuclear Regulatory Commission (NRC) issued NRC Bulletin 2003-02, "Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity," to the industry. This bulletin informed addressees that current methods of inspecting the reactor pressure vessel (RPV) lower heads may need to be supplemented with bare-metal visual inspections in order to detect reactor coolant pressure boundary leakage. The bulletin also requested these addressees to provide the NRC with information related to inspections that have been performed to verify the integrity of the RPV lower head penetrations.

The bulletin requested that addressees provide a description of the RPV lower head penetration inspection program that would be implemented at their respective plants during the next and subsequent refueling outages. This description was to include the extent of the inspection, the inspection methods to be used, the qualification standards for the inspection methods, the process used to resolve the source of findings of boric acid deposits or corrosion, the inspection documentation to be generated, and the basis for concluding that their plant satisfied applicable regulatory requirements related to the structural and leakage integrity of the RPV lower head penetrations.

By letter dated September 19, 2003, Southern Nuclear Operating Company (SNC) provided its response to this request. SNC committed to perform a 360-degree bare-metal visual examination of the RPV lower head penetrations and a general inspection of the RPV lower head, during the Fall 2003 and Spring 2004 refueling outages at Vogtle Electric Generating Plant (Vogtle), Units 1 and 2, respectively. In its same response, SNC indicated that the extent and frequency of subsequent inspections of the RPV lower head penetrations, beyond the Fall 2003 and Spring 2004 refueling outages, will depend upon the results of the visual examinations performed during the Fall 2003 and Spring 2004 refueling outages, the results of the root cause analysis of the RPV lower head penetration leakage at South Texas Project, Unit 1, and future industry experience. The NRC staff notes that there are a number of ongoing industry and NRC staff activities related to developing criteria for RPV lower head penetration inspections. The NRC staff expects that the criteria for these inspections will involve periodic bare-metal visual examinations or their equivalent.

The bulletin also requested that addressees provide a summary of the RPV lower head penetration inspection that was performed at their plants, the extent of the inspection and the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

By letter dated December 19, 2003, SNC provided a summary of its inspection results at Vogtle, Unit 1. SNC reported it had performed a 360-degree bare-metal visual examination on all RPV lower head penetrations and a general examination of the RPV lower head for indications of wastage or significant corrosion of the low alloy steel vessel. SNC did not observe any evidence of RPV lower head material wastage or RPV lower head penetration leakage.

By letter dated June 28, 2004, SNC provided a summary of its inspection results at Vogtle, Unit 2. SNC reported it had performed a 360-degree bare-metal visual examination on all RPV lower head penetrations and a general examination of the RPV lower head for indications of wastage or significant corrosion of the low alloy steel vessel. SNC did not observe any evidence of RPV lower head material wastage or RPV lower head penetration leakage.

Based on its review of SNC's responses to NRC Bulletin 2003-02, the NRC staff finds that Vogtle has met the reporting requirements of the bulletin. Accordingly, TAC Nos. MC0574 and MC0575 are closed for Vogtle, Units 1 and 2, respectively.

Sincerely,

/RA/

Christopher Gratton, Sr. Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

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The bulletin also requested that addressees provide a summary of the RPV lower head penetration inspection that was performed at their plants, the extent of the inspection and the methods used, a description of the as-found condition of the lower head, any findings of relevant indications of through-wall leakage, and a summary of the disposition of any findings of boric acid deposits and any corrective actions taken as a result of indications found.

By letter dated December 19, 2003, SNC provided a summary of its inspection results at Vogtle, Unit 1. SNC reported it had performed a 360-degree bare-metal visual examination on all RPV lower head penetrations and a general examination of the RPV lower head for indications of wastage or significant corrosion of the low alloy steel vessel. SNC did not observe any evidence of RPV lower head material wastage or RPV lower head penetration leakage.

By letter dated June 28, 2004, SNC provided a summary of its inspection results at Vogtle, Unit 2. SNC reported it had performed a 360-degree bare-metal visual examination on all RPV lower head penetrations and a general examination of the RPV lower head for indications of wastage or significant corrosion of the low alloy steel vessel. SNC did not observe any evidence of RPV lower head material wastage or RPV lower head penetration leakage.

Based on its review of SNC's responses to NRC Bulletin 2003-02, the NRC staff finds that Vogtle has met the reporting requirements of the bulletin. Accordingly, TAC Nos. MC0574 and MC0575 are closed for Vogtle, Units 1 and 2, respectively.

Sincerely,

/RA/

Christopher Gratton, Sr. Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
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